CLAIMS

What is claimed is:

1.   A performance test system comprising:

a measuring device to measure an object device; and

a computing device having a controller to test performance of the object device on the basis of measured data transmitted from the measuring device;

wherein the controller

controls to display a report setup window through which data to be reflected in a measurement report is inputted, a coordinate-system setup window through which a coordinate system is set up based on the object device, and a measuring option setup window through which options for measuring the performance of the object device are set up,

controls operation of the measuring device and the object device based on the options set up through the measuring option setup window, and tests the performance of the object device based on the measured data transmitted from the measuring device according to the operation of the object device and the measuring device, and

controls to display a report window to process and to output report data inputted through the report setup window and the measured data transmitted from the measuring device.

2.   The performance test system of claim 1, wherein the controller controls to display a device registration window through which information on the object device is inputted.

3.   The performance test system of claim 2, wherein the device registration window comprises:

a configuration window through which configuration information including types and model names of the object device is registered; and

a specification window through which specification information according to the types and the model names of the object device based on the configuration information of the object device is registered.

4.   The performance test system of claim 3, wherein the configuration window comprises a selection field having a plurality of selection buttons, and data input sheets displayed when the selection button is clicked.

5.   The performance test system of claim 3, wherein the specification window comprises:

a device selection field having a type selection combo box through which one of the types of the objective device registered through the configuration window is selected, and a model selection combo box through which the model names of the object device registered through the configuration window is selected; and

a specification registration field having at least one test item selection button corresponding to test items, and a specification input box being displayed when the test item selection button is selected and through which the specification information on the test item corresponding to the selected test item selection button is inputted.

6.   The performance test system of claim 2, wherein the controller controls the measuring device to obtain coordinate values corresponding to first, second and third points to define a seating plane on which the object device is located, and to obtain coordinate values to set up the coordinate system based on the object device.

7.   The performance test system of claim 6, wherein the coordinate-system setup window comprises:

a coordinate-system setup field having first, second and third point option buttons corresponding to the respective first, second and third points; and

a measure button to issue a control command to the measuring device to obtain the coordinate value of the point corresponding to a selected one of the first, second and third point option buttons.

8.   The performance test system of claim 7, wherein the coordinate-system setup field further comprises:

coordinate-system setup option buttons corresponding to coordinate values to set up the coordinate system based on the object device; and

coordinate input boxes corresponding to the respective coordinate-system setup option buttons through which the coordinate values based on the object device are inputted, wherein the controller controls the measuring device to obtain a coordinate value of a point corresponding to the selected coordinate-system setup option button when a user selects one of the coordinate-system setup option buttons and clicks the measure button.

9.   The performance test system of claim 8, wherein the controller sets up the coordinate system based on the object device on the basis of the coordinate values inputted through the coordinate input boxes and the coordinate values obtained to define the coordinate system based on the object device.

10.   The performance test system of claim 9, wherein the coordinate-system setup window further comprises a coordinate display field having a first display sheet to display the coordinate values controlled through the coordinate-system setup field and inputted from the measuring device as the coordinate values corresponding to the coordinate system based on the measuring device, and a second display sheet to display the coordinate values displayed on the first display sheet as the coordinate values corresponding to the coordinate system based on the object device.

11.   The performance test system of claim 10, wherein the coordinate-system setup window further comprises:
       a rotation translation field having an axis selection button to select an axis about which the coordinate system is rotated; and
       a rotation angle input box through which a rotation angle is inputted, wherein the controller rotates the coordinate system set up through the coordinate-system setup field about an axis selected through the axis selection button axis at an angle inputted through the rotation angle input box.

12.   The performance test system of claim 1, wherein the measuring option setup window comprises:
       a network setup field to set up a network between the computing device and the object device;

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a device configuration setup field to set up an operating configuration of the object device reflected in the performance measurement of the object device; and

a measuring option setup field including a test item check box corresponding to at least one of test items, a measuring sequence input box to prioritize the test items checked through the test item check box, and a measuring cycle input box to input the number of measuring times for the test items checked through the test item check box.

13.   The performance test system of claim 1, wherein the report setup window comprises:

a report main window having a report selection menu corresponding to at least one test item; and

a plurality of report displaying windows to be accessed based on the selected report selection menu.

14.   The performance test system of claim 13, wherein the report main window comprises a coordinate translation menu to access a coordinate translation window,

the coordinate translation window having a coordinate translation button to translate the measured data transmitted from the measuring device into the coordinate values corresponding to the coordinate system based on the object device set up through the coordinate-system setup window.

15.   The performance test system of claim 13, wherein each of the report displaying windows comprises:

a report display field processing and displaying the measured data transmitted from the measuring device; and

an output field having a print button to print the measurement report reflecting the report data inputted through the report setup window and the measured data transmitted from the measuring device, and a storing button to store the report data inputted through the report setup window and the measured data transmitted from the measuring device as a predetermined file.

16.   The performance test system of claim 1, wherein the controller comprises a performance test program based on an operating system of the computing device.

17.   The performance test system of claim 5, wherein the test items comprise at least one of "pose accuracy and repeatability", "multi-directional pose accuracy", "distance accuracy and repeatability", "pose stabilization time and over shoot", "exchangeability", "path accuracy and repeatability", "path velocity characteristics", "circular path accuracy and repeatability", "path accuracy on reorientation", "cornering deviations", and "minimum posing time".

18.   The performance test system of claim 5, wherein the specification window further comprises a display sheet on which previously registered specification information on the model name of the object device is shown, to prevent duplicate registration of the specification information corresponding to the same model name.

19.   A performance measurement system of an object device, comprising:
a measuring device to measure a performance of the object device;
a computing device which controls an operation of the measuring device and comprises a controller to test and to report the performance of the object device based on the measured data received from the measuring device, simultaneously;
a display electrically connected to the computing device and displaying a picture; and
a user input part through which a user inputs test and report data corresponding to the performance of the object device.

20.   The performance measurement system of claim 19, wherein the measuring device obtains coordinate values corresponding to a specific point or movement of the object device and transmits the coordinate values to the computing device.

21.   The performance measurement system of claim 19, wherein the computing device stores, computes and processes the test and report data inputted through the user input part and the measured data received from the measuring device, to test the performance of the object device.

22.   The performance measurement system of claim 19, wherein the controller comprises a performance test program based on an operating system of the computing device.

23.   The performance measurement system of claim 22, wherein the performance test program comprises a performance test main window to be displayed on the display, wherein the performance test main window comprises:

a device registration window through which information on the object device is inputted;

a system setup button to access the device registration window;

a measurement menu to access windows for measuring performance of the object device; and

a report menu to access a report window on which the performance measurement of the object device is to be reported.

24.   The performance measurement system of claim 23, wherein the performance test main window further comprises:

an archive menu to access data corresponding to the performance measurement; and

an exit menu to exit from the performance test program.

25.   The performance measurement system of claim 23, wherein when the system setup button is clicked, the performance test program allows the device registration window through which the information on the object device is inputted to be displayed on the display.

26.   The performance measurement system of claim 25, wherein the device registration window comprises:

a configuration window through which configuration information including types and model names of the object device is registered; and

a specification window through which specification information according to the types and the model names of the object device based on the configuration information of the object device is registered.

27.   The performance measurement system of claim 26, wherein the configuration window comprises a selection field having a plurality of selection buttons, and data input sheets displayed when the selection button is clicked.

28.   The performance measurement system of claim 27, wherein the plurality of selection buttons comprise:

a model registration button to allow a user to input a model name and a model number of the object device;

a test item button, wherein the data input sheet showing test items for the object device are displayed;

an internet protocol address button to show input lines for the model names and an internet protocol address of the object device; and

an internet protocol port button inputting an internet protocol port.

29.   The performance measurement system of claim 26, wherein the specification window comprises:

a device selection field having a type selection combo box through which one of the types of the objective device registered through the configuration window is selected, and a model selection combo box through which the model names of the object device registered through the configuration window is selected; and

a specification registration field having at least one test item selection button corresponding to test items, and a specification input box being displayed when the test item selection button is selected and through which the specification information on the test item corresponding to the selected test item selection button is inputted.

30.   The performance measurement system of claim 29, wherein the specification window further comprises a display sheet on which previously registered specification information on the model name of the object device is shown, to prevent duplicate registration of the specification information corresponding to the same model name.

31.   The performance measurement system of claim 23, wherein the measurement menu comprises:

a report setup window through which data to report the measurement is inputted;

a coordinate-system setup window through which a coordinate system is set up based on the object device; and

a measuring option setup window through which options for measuring the performance of the object device are set up.

32.   The performance measurement system of claim 20, wherein the controller controls the measuring device to obtain the coordinate values corresponding to first, second and third points to define a seating plane on which the object device is located, and to obtain coordinate values to set up the coordinate system based on the object device.

33.   The performance measurement system of claim 31, wherein the coordinate-system setup window comprises:

a coordinate-system setup field having first, second and third point option buttons corresponding to the respective first, second and third points; and

a measure button to issue a control command to the measuring device to obtain the coordinate values of points corresponding to the first, second and third point option buttons.

34.   The performance measurement system of claim 33, wherein the coordinate-system setup field further comprises:

coordinate-system setup option buttons corresponding to coordinate values to set up the coordinate system based on the object device; and

coordinate input boxes corresponding to the respective coordinate-system setup option buttons through which the coordinate values based on the object device are inputted, wherein the controller controls the measuring device to obtain a coordinate value of a point corresponding to the selected coordinate-system setup option button when a user selects one of the coordinate-system setup option buttons and clicks the measure button.

35.   The performance measurement system of claim 34, wherein a relative position between the coordinate values based on the object device and the coordinate values based on the measuring device is obtained to set up a coordinate system based on the object device.

36.   The performance measurement system of claim 32, wherein a degree of the measured seating plane of the object device defined based on the coordinate values is parallel with a predetermined reference plane.

37.   The performance measurement system of claim 36, wherein the measured seating plane is inclined relative to the predetermined reference plane at a predetermined angle and the predetermined angle is reflected in the measured data of the object device based on the coordinate values obtained by the measuring device.